CLAIMS

What is claimed is:

1. A paper handler in combination with a printer comprising:

   a paper inlet where paper enters said paper handler, where the paper has leading edge;

   a paper exit where paper exits said paper handler from said paper handler to the inlet of the printer; and

   a drag system that handles the paper within said paper handler to provide for seamless continuous paper flow through the printer.

2. The paper handler of claim 1, further comprising an optic sensor.

3. The paper handler of claim 2, where said optic sensor senses marks on the paper and communicates with the printer indicating sensing of the marks by the optic sensor.

4. The paper handler of claim 1 further comprising an automatic paper advance system that automatically positions the leading edge of the paper proximate to the printer inlet.

5. The paper handler of claim 4, where the printer is provided with a paper sensor that senses paper at the printer inlet and where said automatic paper advance system is in communication with the printer such that when the printer senses paper in the printer inlet the automatic paper advance system terminates paper feed to the printer inlet.

6. The paper handler of claim 1, where said paper handler is in communication with the printer.

7. The paper handler of claim 1, where said paper handling system produces a drag force onto the paper.

1   8.   The paper handling system of claim 7, where said paper handling system produces a

2   drag force onto the paper that is uniform across the width of the paper.

3   9.   The paper handler of claim 1, where said paper handling system is comprised of a

4   tension block disposed proximate to and parallel with a tension rod.

5   10. The paper handler of claim 9, where the paper is threaded between said tension block

6   and said tension rod, where said tension block and said tension rod cooperate to exert

7   a drag force on the paper.

8   11. The paper handler of claim 1, wherein the paper is a paper stream comprising a

9   continuous stream of paper.

10   12. The paper handler of claim 1 further comprising a programmable controller, where

11   said controller is in operative communication with said paper handler and said printer.

12   13. The paper handler of claim 1 further comprising a paper cutter that cuts the paper

13   within the paper handler, wherein said controller directs the operation of said paper

14   cutter, monitors the operation of said paper cutter, and monitors the position of said

15   paper cutter.

16   14. The paper handler of claim 13, where said paper handler controller operatively

17   communicates with said paper cutter and directs said paper cutter to cut the paper

18   within the paper handler.

19   15. The paper handler of claim 13 further comprising a motor, wherein said motor

20   operatively advances paper through the paper handler, and wherein said controller

21   controls the speed of said motor, the rate of deceleration of said motor, the rate of

22   acceleration of said motor, the actuation of said motor, and the deactivation of said

23   motor.

1   16. The paper handler and printer combination of claim 1, where the printer is an off the

2   shelf printer and modified to be in operative cooperation with said paper handler.

3   17. A method of handling a continuous feed of paper through a paper handler and a

4   printer comprising the steps of:

5   directing paper into a paper handler having an inlet and an outlet, where the paper into

6   the paper handler enters the inlet and paper exiting the paper handler exits the outlet;

7   directing the paper exiting the paper handler into the inlet of the printer; and

8   handling the paper within the paper handler to provide for continuous seamless paper

9   flow through the printer,

10   where the paper has a leading edge.

11   18. The method of claim 17 further comprising sensing the presence of the leading edge

12   of the paper proximate to the printer inlet.

13   19. The method of claim 17 further comprising forwarding paper from the paper handler

14   to the printer inlet until the leading edge of the paper is sensed proximate to the

15   printer inlet.

16   20. The method of claim 17 further comprising drawing the leading edge of the paper into

17   the printer inlet after the leading edge of the paper is sensed proximate to the printer

18   inlet.

19   21. The method of claim 17 further comprising sensing for top of form indicators.

20   22. The method of claim 17 further comprising executing a print job after a top of form

21   indicator has been sensed.

22   23. The method of claim 17 further comprising monitoring the paper travel through the

23   printer to determine if a paper jam has occurred.

1   24. The method of claim 23 further comprising monitoring the paper travel through the

2   printer by directing the paper exiting the printer across a magnetized wheel thereby

3   rotating the magnetized wheel when paper movement is occurring such that a

4   detectable oscillating magnetic field is produced when the paper continues to exit the

5   printer.

6   25. The method of claim 24 further comprising monitoring the magnetic field produced

7   by the rotating magnetic wheel and terminating printer operations when the magnetic

8   field ceases that is produced by the rotating magnetic wheel.

9   26. The method of claim 17 further comprising monitoring the status of a print job to

10   determine the completion of a print job and advancing paper to the top of form

11   position upon the completion of a print job.

12   27. The method of claim 17 further comprising determining if a print job is pending for

13   printing and cutting the paper upon the completion of a print job and the

14   determination that no print job is pending for printing.

15   28. The method of claim 17 further comprising operatively coupling said paper handler

16   with the printer.

17   29. The method of claim 17 where said paper handler includes a paper handler controller

18   and the printer includes a printer controller, where the paper handler controller

19   monitors the paper handler and provides control commands to the paper handler and

20   to the printer controller, and where the printer controller monitors the printer and

21   provides control commands to the printer and to the paper handler controller.

22   30. The method of claim 29 further comprising modifying the printer to receive data from

23   said paper handler and to transmit data to said paper handler.

1   31. The method of claim 30 further comprising modifying the printer controller to receive

2   data from said paper handler controller and to transmit data to said paper handler

3   controller.

4   32. A method of printing onto a continuous stream of paper comprising the steps of:

5   coupling a paper handler with a printer;

6   adding top of form indicators to the continuous stream of paper;

7   feeding the leading edge of the continuous stream of paper through the paper handler

8   to the paper inlet of the printer;

9   sensing for the top of form indicators;

10   receiving a print job into the printer; and

11   monitoring when a top of form indicator has been sensed and initiate printing the print

12   job onto the continuous stream of paper at that time.

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